

~~JC18 Rec'd PCT/PTO 29 APR 2005~~

SEQUENCE LISTING

<110> THE UNITED STATES OF AMERICA AS REPRESENTED BY THE
SECRETARY OF THE DEPARTMENT OF HEALTH AND HUMAN SERVICES
Klinman, Dennis M.
Ivins, Bruce
Verthelyi, Daniela

<120> METHOD OF PREVENTING INFECTIONS FROM BIOTERRORISM AGENTS WITH
IMMUNOSTIMULATORY CpG OLIGONUCLEOTIDES

<130> 4239-67021

<150> US 60/422,964
<151> 2002-11-01

<160> 199

<170> PatentIn version 3.2

<210> 1
<211> 20
<212> DNA
<213> Artificial sequence

<220>
<223> CpG D oligonucleotide

<220>
<221> misc_feature
<222> (1)..(2)
<223> n is any base, or no base at all

<400> 1
nntgcatcga tgcagggggg 20

<210> 2
<211> 20
<212> DNA
<213> Artificial sequence

<220>
<223> CpG D oligonucleotide

<220>
<221> misc_feature
<222> (1)..(2)
<223> n is any base, or no base at all

<400> 2
nntgcaccgg tgcagggggg 20

<210> 3
<211> 20
<212> DNA
<213> Artificial sequence

<220>
<223> CpG D oligonucleotide

<220>
<221> misc_feature
<222> (1)..(2)
<223> n is any base, or no base at all

<400> 3
nntgcgtcga cgcagggggg

20

<210> 4
<211> 20
<212> DNA
<213> Artificial sequence

<220>
<223> CpG D oligonucleotide

<220>
<221> misc_feature
<222> (1)..(2)
<223> n is any base, or no base at all

<400> 4
nntgcgtcga tgcagggggg

20

<210> 5
<211> 20
<212> DNA
<213> Artificial sequence

<220>
<223> CpG D oligonucleotide

<220>
<221> misc_feature
<222> (1)..(2)
<223> n is any base, or no base at all

<400> 5
nntgcgccgg cgcagggggg

20

<210> 6
<211> 20
<212> DNA
<213> Artificial sequence

<220>
<223> CpG D oligonucleotide

<220>
<221> misc_feature
<222> (1)..(2)
<223> n is any base, or no base at all

<400> 6
nntgcgccga tgcagggggg

20

<210> 7
<211> 20

<212> DNA
<213> Artificial sequence

<220>
<223> CpG D oligonucleotide

<220>
<221> misc_feature
<222> (1)..(2)
<223> n is any base, or no base at all

<400> 7
nntgcatcga cgcagggggg 20

<210> 8
<211> 20
<212> DNA
<213> Artificial sequence

<220>
<223> CpG D oligonucleotide

<220>
<221> misc_feature
<222> (1)..(2)
<223> n is any base, or no base at all

<400> 8
nntgcgtcgg tgcagggggg 20

<210> 9
<211> 6
<212> DNA
<213> Artificial sequence

<220>
<223> CpG D oligonucleotide

<400> 9
atcgat 6

<210> 10
<211> 6
<212> DNA
<213> Artificial sequence

<220>
<223> CpG D oligonucleotide

<400> 10
accggt 6

<210> 11
<211> 6
<212> DNA
<213> Artificial sequence

<220>
<223> CpG D oligonucleotide

<400> 11
atcgac 6

<210> 12
<211> 6
<212> DNA
<213> Artificial sequence

<220>
<223> CpG D oligonucleotide

<400> 12
accgat 6

<210> 13
<211> 6
<212> DNA
<213> Artificial sequence

<220>
<223> CpG D oligonucleotide

<400> 13
gtcgac 6

<210> 14
<211> 6
<212> DNA
<213> Artificial sequence

<220>
<223> CpG D oligonucleotide

<400> 14
gccggc 6

<210> 15
<211> 20
<212> DNA
<213> Artificial sequence

<220>
<223> CpG D oligonucleotide

<400> 15
ggtgcatcga tacagggggg 20

<210> 16
<211> 20
<212> DNA
<213> Artificial sequence

<220>
<223> CpG D oligonucleotide

<400> 16
ggtgcgtcga tgcagggggg 20

<210> 17
<211> 15
<212> DNA
<213> Artificial sequence

<220>
<223> CpG D oligonucleotide

<400> 17
gctagacgtt agcgt 15

<210> 18
<211> 10
<212> DNA
<213> Artificial sequence

<220>
<223> CpG D oligonucleotide

<400> 18
tcaacgttga 10

<210> 19
<211> 15
<212> DNA
<213> Artificial sequence

<220>
<223> Control D oligonucleotide

<400> 19
gctagagctt aggct 15

<210> 20
<211> 10
<212> DNA
<213> Artificial sequence

<220>
<223> Control D oligonucleotide

<400> 20
tcaagcttga 10

<210> 21
<211> 20
<212> DNA
<213> Artificial sequence

<220>
<223> CpG D oligonucleotide

<400> 21
ggtgcatcga tgcagggggg 20

<210> 22
<211> 20
<212> DNA
<213> Artificial sequence

<220>
<223> CpG D oligonucleotide

<400> 22
ggtgcaccgg tgcagggggg 20

<210> 23
<211> 20
<212> DNA
<213> Artificial sequence

<220>
<223> CpG D oligonucleotide

<400> 23
atcgactctc gagcgttctc 20

<210> 24
<211> 12
<212> DNA
<213> Artificial sequence

<220>
<223> CpG D oligonucleotide

<400> 24
tcgttcgttc tc 12

<210> 25
<211> 12
<212> DNA
<213> Artificial sequence

<220>
<223> CpG D oligonucleotide

<400> 25
tcgagcgttc tc 12

<210> 26
<211> 20
<212> DNA
<213> Artificial sequence

<220>
<223> Control D oligonucleotide

<400> 26
ggtgcattga tgcagggggg 20

<210> 27
<211> 12
<212> DNA
<213> Artificial sequence

<220>
<223> Control D oligonucleotide

<400> 27
ttgagtgttc tc 12

<210> 28
<211> 16
<212> DNA
<213> Artificial sequence

<220>
<223> Control D oligonucleotide

<400> 28
gggcatgcat gggggg

16

<210> 29
<211> 20
<212> DNA
<213> Artificial sequence

<220>
<223> K oligonucleotide

<400> 29
tccatgtcgc tcctgatgct

20

<210> 30
<211> 20
<212> DNA
<213> Artificial sequence

<220>
<223> K oligonucleotide

<400> 30
tccatgtcgt tcctgatgct

20

<210> 31
<211> 23
<212> DNA
<213> Artificial sequence

<220>
<223> K oligonucleotide

<400> 31
tcgtcgtttt gtcgttttgt cgt

23

<210> 32
<211> 20
<212> DNA
<213> Artificial sequence

<220>
<223> K oligonucleotide

<400> 32
tcgtcgttgt cgttgcgtt

20

<210> 33
<211> 23
<212> DNA

<213> Artificial sequence

<220>

<223> K oligonucleotide

<400> 33

tcgtcgtttt gtcgtttgtc gtt

23

<210> 34

<211> 22

<212> DNA

<213> Artificial sequence

<220>

<223> K oligonucleotide

<400> 34

tcgtcgttgt cgttttgtcg tt

22

<210> 35

<211> 21

<212> DNA

<213> Artificial sequence

<220>

<223> K oligonucleotide

<400> 35

gcgtgcgttg tcgttgcgt t

21

<210> 36

<211> 21

<212> DNA

<213> Artificial sequence

<220>

<223> K oligonucleotide

<400> 36

tgtcgtttgt cgtttgcgt t

21

<210> 37

<211> 19

<212> DNA

<213> Artificial sequence

<220>

<223> K oligonucleotide

<400> 37

tgtcgttgtc gttgtcgtt

19

<210> 38

<211> 14

<212> DNA

<213> Artificial sequence

<220>

<223> K oligonucleotide

<400> 38
tcgtcgtcgt cggt 14

<210> 39
<211> 20
<212> DNA
<213> Artificial sequence

<220>
<223> K oligonucleotide

<400> 39
tcctgtcggt ccttgtcggt 20

<210> 40
<211> 20
<212> DNA
<213> Artificial sequence

<220>
<223> K oligonucleotide

<400> 40
tcctgtcggt ttttgtcggt 20

<210> 41
<211> 21
<212> DNA
<213> Artificial sequence

<220>
<223> K oligonucleotide

<400> 41
tcgtcgctgt ctgcccttct t 21

<210> 42
<211> 21
<212> DNA
<213> Artificial sequence

<220>
<223> K oligonucleotide

<400> 42
tcgtcgctgt tgcgtttct t 21

<210> 43
<211> 20
<212> DNA
<213> Artificial sequence

<220>
<223> K oligonucleotide

<400> 43
tccatgacgt tcctgacgt 20

<210> 44

<211> 16
 <212> DNA
 <213> Artificial sequence

<220>
 <223> synthetic

<220>
 <221> misc_feature
 <222> (1)..(3)
 <223> n is a, c, g, or t

<220>
 <221> misc_feature
 <222> (10)..(12)
 <223> n is a, c, g, or t

<400> 44
 nnnrycgryn nngggg

16

<210> 45
 <211> 17
 <212> DNA
 <213> Artificial sequence

<220>
 <223> synthetic

<220>
 <221> misc_feature
 <222> (1)..(3)
 <223> n is a, c, g, or t

<220>
 <221> misc_feature
 <222> (10)..(13)
 <223> n is a, c, g, or t

<400> 45
 nnnrycgryn nnngggg

17

<210> 46
 <211> 18
 <212> DNA
 <213> Artificial sequence

<220>
 <223> synthetic

<220>
 <221> misc_feature
 <222> (1)..(3)
 <223> n is a, c, g, or t

<220>
 <221> misc_feature
 <222> (10)..(14)
 <223> n is a, c, g, or t

<400> 46

nnnrycgryn nnnngggg

18

<210> 47
<211> 19
<212> DNA
<213> Artificial sequence

<220>
<223> synthetic

<220>
<221> misc_feature
<222> (1)..(3)
<223> n is a, c, g, or t

<220>
<221> misc_feature
<222> (10)..(15)
<223> n is a, c, g, or t

<400> 47
nnnrycgryn nnnnngggg

19

<210> 48
<211> 20
<212> DNA
<213> Artificial sequence

<220>
<223> synthetic

<220>
<221> misc_feature
<222> (1)..(3)
<223> n is a, c, g, or t

<220>
<221> misc_feature
<222> (10)..(16)
<223> n is a, c, g, or t

<400> 48
nnnrycgryn nnnnnngggg

20

<210> 49
<211> 21
<212> DNA
<213> Artificial sequence

<220>
<223> synthetic

<220>
<221> misc_feature
<222> (1)..(3)
<223> n is a, c, g, or t

<220>
<221> misc_feature

<222> (10)..(17)
<223> n is a, c, g, or t

<400> 49
nnnrycgryn nnnnnnnngg g

21

<210> 50
<211> 22
<212> DNA
<213> Artificial sequence

<220>
<223> synthetic

<220>
<221> misc_feature
<222> (1)..(3)
<223> n is a, c, g, or t

<220>
<221> misc_feature
<222> (10)..(18)
<223> n is a, c, g, or t

<400> 50
nnnrycgryn nnnnnnnngg gg

22

<210> 51
<211> 23
<212> DNA
<213> Artificial sequence

<220>
<223> synthetic

<220>
<221> misc_feature
<222> (1)..(3)
<223> n is a, c, g, or t

<220>
<221> misc_feature
<222> (10)..(19)
<223> n is a, c, g, or t

<400> 51
nnnrycgryn nnnnnnnnng ggg

23

<210> 52
<211> 24
<212> DNA
<213> Artificial sequence

<220>
<223> synthetic

<220>
<221> misc_feature
<222> (1)..(3)

<223> n is a, c, g, or t

<220>

<221> misc_feature

<222> (10)..(20)

<223> n is a, c, g, or t

<400> 52

nnnrycgryn nnnnnnnnnn gggg

24

<210> 53

<211> 25

<212> DNA

<213> Artificial sequence

<220>

<223> synthetic

<220>

<221> misc_feature

<222> (1)..(3)

<223> n is a, c, g, or t

<220>

<221> misc_feature

<222> (10)..(21)

<223> n is a, c, g, or t

<400> 53

nnnrycgryn nnnnnnnnnn ngggg

25

<210> 54

<211> 26

<212> DNA

<213> Artificial sequence

<220>

<223> synthetic

<220>

<221> misc_feature

<222> (1)..(3)

<223> n is a, c, g, or t

<220>

<221> misc_feature

<222> (10)..(22)

<223> n is a, c, g, or t

<400> 54

nnnrycgryn nnnnnnnnnn nngggg

26

<210> 55

<211> 17

<212> DNA

<213> Artificial sequence

<220>

<223> synthetic

<220>
<221> misc_feature
<222> (1)..(3)
<223> n is a, c, g, or t

<220>
<221> misc_feature
<222> (10)..(12)
<223> n is a, c, g, or t

<400> 55
nnnrycgryn nngggggg

17

<210> 56
<211> 18
<212> DNA
<213> Artificial sequence

<220>
<223> synthetic

<220>
<221> misc_feature
<222> (1)..(3)
<223> n is a, c, g, or t

<220>
<221> misc_feature
<222> (10)..(13)
<223> n is a, c, g, or t

<400> 56
nnnrycgryn nnngggggg

18

<210> 57
<211> 19
<212> DNA
<213> Artificial sequence

<220>
<223> synthetic

<220>
<221> misc_feature
<222> (1)..(3)
<223> n is a, c, g, or t

<220>
<221> misc_feature
<222> (10)..(14)
<223> n is a, c, g, or t

<400> 57
nnnrycgryn nnnngggggg

19

<210> 58
<211> 20
<212> DNA
<213> Artificial sequence

<220>
<223> synthetic

<220>
<221> misc_feature
<222> (1)..(3)
<223> n is a, c, g, or t

<220>
<221> misc_feature
<222> (10)..(15)
<223> n is a, c, g, or t

<400> 58
nnnrycgryn nnnnnngggg

20

<210> 59
<211> 21
<212> DNA
<213> Artificial sequence

<220>
<223> synthetic

<220>
<221> misc_feature
<222> (1)..(3)
<223> n is a, c, g, or t

<220>
<221> misc_feature
<222> (10)..(16)
<223> n is a, c, g, or t

<400> 59
nnnrycgryn nnnnnngggg g

21

<210> 60
<211> 22
<212> DNA
<213> Artificial sequence

<220>
<223> synthetic

<220>
<221> misc_feature
<222> (1)..(3)
<223> n is a, c, g, or t

<220>
<221> misc_feature
<222> (10)..(17)
<223> n is a, c, g, or t

<400> 60
nnnrycgryn nnnnnnggg gg

22

<210> 61
<211> 23
<212> DNA
<213> Artificial sequence

<220>
<223> synthetic

<220>
<221> misc_feature
<222> (1)..(3)
<223> n is a, c, g, or t

<220>
<221> misc_feature
<222> (10)..(18)
<223> n is a, c, g, or t

<400> 61
nnnrycgryn nnnnnnnngg ggg

23

<210> 62
<211> 24
<212> DNA
<213> Artificial sequence

<220>
<223> synthetic

<220>
<221> misc_feature
<222> (1)..(3)
<223> n is a, c, g, or t

<220>
<221> misc_feature
<222> (10)..(19)
<223> n is a, c, g, or t

<400> 62
nnnrycgryn nnnnnnnng gggg

24

<210> 63
<211> 25
<212> DNA
<213> Artificial sequence

<220>
<223> synthetic

<220>
<221> misc_feature
<222> (1)..(3)
<223> n is a, c, g, or t

<220>
<221> misc_feature
<222> (10)..(20)
<223> n is a, c, g, or t

<400> 63
nnnrycgryn nnnnnnnnnn ggggg

25

<210> 64
<211> 26
<212> DNA
<213> Artificial sequence

<220>
<223> synthetic

<220>
<221> misc_feature
<222> (1)..(3)
<223> n is a, c, g, or t

<220>
<221> misc_feature
<222> (10)..(21)
<223> n is a, c, g, or t

<400> 64
nnnrycgryn nnnnnnnnnn nggggg

26

<210> 65
<211> 27
<212> DNA
<213> Artificial sequence

<220>
<223> synthetic

<220>
<221> misc_feature
<222> (1)..(3)
<223> n is a, c, g, or t

<220>
<221> misc_feature
<222> (10)..(22)
<223> n is a, c, g, or t

<400> 65
nnnrycgryn nnnnnnnnnn nnggggg

27

<210> 66
<211> 18
<212> DNA
<213> Artificial sequence

<220>
<223> synthetic

<220>
<221> misc_feature
<222> (1)..(3)
<223> n is a, c, g, or t

<220>

<221> misc_feature
<222> (10)..(12)
<223> n is a, c, g, or t

<400> 66
nnnrycgryn nngggggg

18

<210> 67
<211> 19
<212> DNA
<213> Artificial sequence

<220>
<223> synthetic

<220>
<221> misc_feature
<222> (1)..(3)
<223> n is a, c, g, or t

<220>
<221> misc_feature
<222> (10)..(13)
<223> n is a, c, g, or t

<400> 67
nnnrycgryn nnngggggg

19

<210> 68
<211> 20
<212> DNA
<213> Artificial sequence

<220>
<223> synthetic

<220>
<221> misc_feature
<222> (1)..(3)
<223> n is a, c, g, or t

<220>
<221> misc_feature
<222> (10)..(14)
<223> n is a, c, g, or t

<400> 68
nnnrycgryn nnnngggggg

20

<210> 69
<211> 21
<212> DNA
<213> Artificial sequence

<220>
<223> synthetic

<220>
<221> misc_feature

<222> (1)..(3)
<223> n is a, c, g, or t

<220>
<221> misc_feature
<222> (10)..(15)
<223> n is a, c, g, or t

<400> 69
nnnrycgryn nnnnnngggg g

21

<210> 70
<211> 22
<212> DNA
<213> Artificial sequence

<220>
<223> synthetic

<220>
<221> misc_feature
<222> (1)..(3)
<223> n is a, c, g, or t

<220>
<221> misc_feature
<222> (10)..(16)
<223> n is a, c, g, or t

<400> 70
nnnrycgryn nnnnnngggg gg

22

<210> 71
<211> 23
<212> DNA
<213> Artificial sequence

<220>
<223> synthetic

<220>
<221> misc_feature
<222> (1)..(3)
<223> n is a, c, g, or t

<220>
<221> misc_feature
<222> (10)..(17)
<223> n is a, c, g, or t

<400> 71
nnnrycgryn nnnnnnnggg ggg

23

<210> 72
<211> 24
<212> DNA
<213> Artificial sequence

<220>
<223> synthetic

<220>
<221> misc_feature
<222> (1)..(3)
<223> n is a, c, g, or t

<220>
<221> misc_feature
<222> (10)..(18)
<223> n is a, c, g, or t

<400> 72
nnnrycgryn nnnnnnnnngg gggg

24

<210> 73
<211> 25
<212> DNA
<213> Artificial sequence

<220>
<223> synthetic

<220>
<221> misc_feature
<222> (1)..(3)
<223> n is a, c, g, or t

<220>
<221> misc_feature
<222> (10)..(19)
<223> n is a, c, g, or t

<400> 73
nnnrycgryn nnnnnnnnng ggggg

25

<210> 74
<211> 26
<212> DNA
<213> Artificial sequence

<220>
<223> synthetic

<220>
<221> misc_feature
<222> (1)..(3)
<223> n is a, c, g, or t

<220>
<221> misc_feature
<222> (10)..(20)
<223> n is a, c, g, or t

<400> 74
nnnrycgryn nnnnnnnnnn gggggg

26

<210> 75
<211> 27
<212> DNA

<213> Artificial sequence

<220>

<223> synthetic

<220>

<221> misc_feature

<222> (1)..(3)

<223> n is a, c, g, or t

<220>

<221> misc_feature

<222> (10)..(21)

<223> n is a, c, g, or t

<400> 75

nnnrycgryn nnnnnnnnnn ngggggg

27

<210> 76

<211> 28

<212> DNA

<213> Artificial sequence

<220>

<223> synthetic

<220>

<221> misc_feature

<222> (1)..(3)

<223> n is a, c, g, or t

<220>

<221> misc_feature

<222> (10)..(22)

<223> n is a, c, g, or t

<400> 76

nnnrycgryn nnnnnnnnnn nngggggg

28

<210> 77

<211> 19

<212> DNA

<213> Artificial sequence

<220>

<223> synthetic

<220>

<221> misc_feature

<222> (1)..(3)

<223> n is a, c, g, or t

<220>

<221> misc_feature

<222> (10)..(12)

<223> n is a, c, g, or t

<400> 77

nnnrycgryn nngggggg

19

<210> 78
<211> 20
<212> DNA
<213> Artificial sequence

<220>
<223> synthetic

<220>
<221> misc_feature
<222> (1)..(3)
<223> n is a, c, g, or t

<220>
<221> misc_feature
<222> (10)..(13)
<223> n is a, c, g, or t

<400> 78
nnnrycgryn nnnngggggg

20

<210> 79
<211> 21
<212> DNA
<213> Artificial sequence

<220>
<223> synthetic

<220>
<221> misc_feature
<222> (1)..(3)
<223> n is a, c, g, or t

<220>
<221> misc_feature
<222> (10)..(14)
<223> n is a, c, g, or t

<400> 79
nnnrycgryn nnnngggggg g

21

<210> 80
<211> 22
<212> DNA
<213> Artificial sequence

<220>
<223> synthetic

<220>
<221> misc_feature
<222> (1)..(3)
<223> n is a, c, g, or t

<220>
<221> misc_feature
<222> (10)..(15)
<223> n is a, c, g, or t

<400> 80
nnnrycgryn nnnnnngggg gg 22

<210> 81
<211> 23
<212> DNA
<213> Artificial sequence

<220>
<223> synthetic

<220>
<221> misc_feature
<222> (1)..(3)
<223> n is a, c, g, or t

<220>
<221> misc_feature
<222> (10)..(16)
<223> n is a, c, g, or t

<400> 81
nnnrycgryn nnnnnngggg ggg 23

<210> 82
<211> 24
<212> DNA
<213> Artificial sequence

<220>
<223> synthetic

<220>
<221> misc_feature
<222> (1)..(3)
<223> n is a, c, g, or t

<220>
<221> misc_feature
<222> (10)..(17)
<223> n is a, c, g, or t

<400> 82
nnnrycgryn nnnnnnggg gggg 24

<210> 83
<211> 25
<212> DNA
<213> Artificial sequence

<220>
<223> synthetic

<220>
<221> misc_feature
<222> (1)..(3)
<223> n is a, c, g, or t

<220>
<221> misc_feature
<222> (10)..(18)
<223> n is a, c, g, or t

<400> 83
nnnrycgryn nnnnnnnnngg gggggg

25

<210> 84
<211> 26
<212> DNA
<213> Artificial sequence

<220>
<223> synthetic

<220>
<221> misc_feature
<222> (1)..(3)
<223> n is a, c, g, or t

<220>
<221> misc_feature
<222> (10)..(19)
<223> n is a, c, g, or t

<400> 84
nnnrycgryn nnnnnnnnng gggggg

26

<210> 85
<211> 27
<212> DNA
<213> Artificial sequence

<220>
<223> synthetic

<220>
<221> misc_feature
<222> (1)..(3)
<223> n is a, c, g, or t

<220>
<221> misc_feature
<222> (10)..(20)
<223> n is a, c, g, or t

<400> 85
nnnrycgryn nnnnnnnnnn gggggg

27

<210> 86
<211> 28
<212> DNA
<213> Artificial sequence

<220>
<223> synthetic

<220>

<221> misc_feature
<222> (1)..(3)
<223> n is a, c, g, or t

<220>
<221> misc_feature
<222> (10)..(21)
<223> n is a, c, g, or t

<400> 86
nnnrycgryn nnnnnnnnnn ngggggggg

28

<210> 87
<211> 29
<212> DNA
<213> Artificial sequence

<220>
<223> synthetic

<220>
<221> misc_feature
<222> (1)..(3)
<223> n is a, c, g, or t

<220>
<221> misc_feature
<222> (10)..(22)
<223> n is a, c, g, or t

<400> 87
nnnrycgryn nnnnnnnnnn ngggggggg

29

<210> 88
<211> 20
<212> DNA
<213> Artificial sequence

<220>
<223> synthetic

<220>
<221> misc_feature
<222> (1)..(3)
<223> n is a, c, g, or t

<220>
<221> misc_feature
<222> (10)..(12)
<223> n is a, c, g, or t

<400> 88
nnnrycgryn nngggggggg

20

<210> 89
<211> 21
<212> DNA
<213> Artificial sequence

<220>

<223> synthetic

<220>

<221> misc_feature

<222> (1)..(3)

<223> n is a, c, g, or t

<220>

<221> misc_feature

<222> (10)..(13)

<223> n is a, c, g, or t

<400> 89

nnnrycgryn nnnggggggg g

21

<210> 90

<211> 22

<212> DNA

<213> Artificial sequence

<220>

<223> synthetic

<220>

<221> misc_feature

<222> (1)..(3)

<223> n is a, c, g, or t

<220>

<221> misc_feature

<222> (10)..(14)

<223> n is a, c, g, or t

<400> 90

nnnrycgryn nnnngggggg gg

22

<210> 91

<211> 23

<212> DNA

<213> Artificial sequence

<220>

<223> synthetic

<220>

<221> misc_feature

<222> (1)..(3)

<223> n is a, c, g, or t

<220>

<221> misc_feature

<222> (10)..(15)

<223> n is a, c, g, or t

<400> 91

nnnrycgryn nnnnnggggg ggg

23

<210> 92

<211> 24

<212> DNA
<213> Artificial sequence

<220>
<223> synthetic

<220>
<221> misc_feature
<222> (1)..(3)
<223> n is a, c, g, or t

<220>
<221> misc_feature
<222> (10)..(16)
<223> n is a, c, g, or t

<400> 92
nnnrycgryn nnnnnngggg gggg

24

<210> 93
<211> 25
<212> DNA
<213> Artificial sequence

<220>
<223> synthetic

<220>
<221> misc_feature
<222> (1)..(3)
<223> n is a, c, g, or t

<220>
<221> misc_feature
<222> (10)..(17)
<223> n is a, c, g, or t

<400> 93
nnnrycgryn nnnnnnnggg ggggg

25

<210> 94
<211> 26
<212> DNA
<213> Artificial sequence

<220>
<223> synthetic

<220>
<221> misc_feature
<222> (1)..(3)
<223> n is a, c, g, or t

<220>
<221> misc_feature
<222> (10)..(18)
<223> n is a, c, g, or t

<400> 94
nnnrycgryn nnnnnnnngg gggggg

26

<210> 95
 <211> 27
 <212> DNA
 <213> Artificial sequence

<220>
 <223> synthetic

<220>
 <221> misc_feature
 <222> (1)..(3)
 <223> n is a, c, g, or t

<220>
 <221> misc_feature
 <222> (10)..(19)
 <223> n is a, c, g, or t

<400> 95
 nnnrycgryn nnnnnnnnng gggggggg

27

<210> 96
 <211> 28
 <212> DNA
 <213> Artificial sequence

<220>
 <223> synthetic

<220>
 <221> misc_feature
 <222> (1)..(3)
 <223> n is a, c, g, or t

<220>
 <221> misc_feature
 <222> (10)..(20)
 <223> n is a, c, g, or t

<400> 96
 nnnrycgryn nnnnnnnnnn gggggggg

28

<210> 97
 <211> 29
 <212> DNA
 <213> Artificial sequence

<220>
 <223> synthetic

<220>
 <221> misc_feature
 <222> (1)..(3)
 <223> n is a, c, g, or t

<220>
 <221> misc_feature
 <222> (10)..(21)

<223> n is a, c, g, or t

<400> 97

nnnrycgryn nnnnnnnnnn ngggggggg

29

<210> 98

<211> 30

<212> DNA

<213> Artificial sequence

<220>

<223> synthetic

<220>

<221> misc_feature

<222> (1)..(3)

<223> n is a, c, g, or t

<220>

<221> misc_feature

<222> (10)..(22)

<223> n is a, c, g, or t

<400> 98

nnnrycgryn nnnnnnnnnn nngggggggg

30

<210> 99

<211> 21

<212> DNA

<213> Artificial sequence

<220>

<223> synthetic

<220>

<221> misc_feature

<222> (1)..(3)

<223> n is a, c, g, or t

<220>

<221> misc_feature

<222> (10)..(12)

<223> n is a, c, g, or t

<400> 99

nnnrycgryn nngggggggg g

21

<210> 100

<211> 22

<212> DNA

<213> Artificial sequence

<220>

<223> synthetic

<220>

<221> misc_feature

<222> (1)..(3)

<223> n is a, c, g, or t

<220>
<221> misc_feature
<222> (10)..(13)
<223> n is a, c, g, or t

<400> 100
nnnrycgryn nnnngggggg gg

22

<210> 101
<211> 23
<212> DNA
<213> Artificial sequence

<220>
<223> synthetic

<220>
<221> misc_feature
<222> (1)..(3)
<223> n is a, c, g, or t

<220>
<221> misc_feature
<222> (10)..(14)
<223> n is a, c, g, or t

<400> 101
nnnrycgryn nnnngggggg ggg

23

<210> 102
<211> 24
<212> DNA
<213> Artificial sequence

<220>
<223> synthetic

<220>
<221> misc_feature
<222> (1)..(3)
<223> n is a, c, g, or t

<220>
<221> misc_feature
<222> (10)..(15)
<223> n is a, c, g, or t

<400> 102
nnnrycgryn nnnngggggg gggg

24

<210> 103
<211> 25
<212> DNA
<213> Artificial sequence

<220>
<223> synthetic

<220>
<221> misc_feature
<222> (1)..(3)
<223> n is a, c, g, or t

<220>
<221> misc_feature
<222> (10)..(16)
<223> n is a, c, g, or t

<400> 103
nnnrycgryn nnnnnnngggg gggggg

25

<210> 104
<211> 26
<212> DNA
<213> Artificial sequence

<220>
<223> synthetic

<220>
<221> misc_feature
<222> (1)..(3)
<223> n is a, c, g, or t

<220>
<221> misc_feature
<222> (10)..(17)
<223> n is a, c, g, or t

<400> 104
nnnrycgryn nnnnnnnnggg gggggg

26

<210> 105
<211> 27
<212> DNA
<213> Artificial sequence

<220>
<223> synthetic

<220>
<221> misc_feature
<222> (1)..(3)
<223> n is a, c, g, or t

<220>
<221> misc_feature
<222> (10)..(18)
<223> n is a, c, g, or t

<400> 105
nnnrycgryn nnnnnnnngg gggggg

27

<210> 106
<211> 28
<212> DNA
<213> Artificial sequence

<220>
<223> synthetic

<220>
<221> misc_feature
<222> (1)..(3)
<223> n is a, c, g, or t

<220>
<221> misc_feature
<222> (10)..(19)
<223> n is a, c, g, or t

<400> 106
nnnrycgryn nnnnnnnnnng gggggggg

28

<210> 107
<211> 29
<212> DNA
<213> Artificial sequence

<220>
<223> synthetic

<220>
<221> misc_feature
<222> (1)..(3)
<223> n is a, c, g, or t

<220>
<221> misc_feature
<222> (10)..(20)
<223> n is a, c, g, or t

<400> 107
nnnrycgryn nnnnnnnnnn gggggggg

29

<210> 108
<211> 30
<212> DNA
<213> Artificial sequence

<220>
<223> synthetic

<220>
<221> misc_feature
<222> (1)..(3)
<223> n is a, c, g, or t

<220>
<221> misc_feature
<222> (10)..(21)
<223> n is a, c, g, or t

<400> 108
nnnrycgryn nnnnnnnnnn ngggggggg

30

<210> 109

<211> 31
<212> DNA
<213> Artificial sequence

<220>
<223> synthetic

<220>
<221> misc_feature
<222> (1)..(3)
<223> n is a, c, g, or t

<220>
<221> misc_feature
<222> (10)..(22)
<223> n is a, c, g, or t

<400> 109
nnnrycgryn nnnnnnnnnn nngggggggg g

31

<210> 110
<211> 22
<212> DNA
<213> Artificial sequence

<220>
<223> synthetic

<220>
<221> misc_feature
<222> (1)..(3)
<223> n is a, c, g, or t

<220>
<221> misc_feature
<222> (10)..(12)
<223> n is a, c, g, or t

<400> 110
nnnrycgryn nngggggggg gg

22

<210> 111
<211> 23
<212> DNA
<213> Artificial sequence

<220>
<223> synthetic

<220>
<221> misc_feature
<222> (1)..(3)
<223> n is a, c, g, or t

<220>
<221> misc_feature
<222> (10)..(13)
<223> n is a, c, g, or t

<400> 111

nnnrycgryn nnnngggggg ggg

23

<210> 112
<211> 24
<212> DNA
<213> Artificial sequence

<220>
<223> synthetic

<220>
<221> misc_feature
<222> (1)..(3)
<223> n is a, c, g, or t

<220>
<221> misc_feature
<222> (10)..(14)
<223> n is a, c, g, or t

<400> 112
nnnrycgryn nnnngggggg gggg

24

<210> 113
<211> 25
<212> DNA
<213> Artificial sequence

<220>
<223> synthetic

<220>
<221> misc_feature
<222> (1)..(3)
<223> n is a, c, g, or t

<220>
<221> misc_feature
<222> (10)..(15)
<223> n is a, c, g, or t

<400> 113
nnnrycgryn nnnnnggggg ggggg

25

<210> 114
<211> 26
<212> DNA
<213> Artificial sequence

<220>
<223> synthetic

<220>
<221> misc_feature
<222> (1)..(3)
<223> n is a, c, g, or t

<220>
<221> misc_feature

<222> (10)..(16)
<223> n is a, c, g, or t

<400> 114
nnnrycgryn nnnnnnngggg gggggg

26

<210> 115
<211> 27
<212> DNA
<213> Artificial sequence

<220>
<223> synthetic

<220>
<221> misc_feature
<222> (1)..(3)
<223> n is a, c, g, or t

<220>
<221> misc_feature
<222> (10)..(17)
<223> n is a, c, g, or t

<400> 115
nnnrycgryn nnnnnnnggg gggggg

27

<210> 116
<211> 28
<212> DNA
<213> Artificial sequence

<220>
<223> synthetic

<220>
<221> misc_feature
<222> (1)..(3)
<223> n is a, c, g, or t

<220>
<221> misc_feature
<222> (10)..(18)
<223> n is a, c, g, or t

<400> 116
nnnrycgryn nnnnnnnngg gggggggg

28

<210> 117
<211> 29
<212> DNA
<213> Artificial sequence

<220>
<223> synthetic

<220>
<221> misc_feature
<222> (1)..(3)

<223> n is a, c, g, or t

<220>

<221> misc_feature

<222> (10)..(19)

<223> n is a, c, g, or t

<400> 117

nnnrycgryn nnnnnnnnng gggggggggg

29

<210> 118

<211> 30

<212> DNA

<213> Artificial sequence

<220>

<223> synthetic

<220>

<221> misc_feature

<222> (1)..(3)

<223> n is a, c, g, or t

<220>

<221> misc_feature

<222> (10)..(20)

<223> n is a, c, g, or t

<400> 118

nnnrycgryn nnnnnnnnnn gggggggggg

30

<210> 119

<211> 31

<212> DNA

<213> Artificial sequence

<220>

<223> synthetic

<220>

<221> misc_feature

<222> (1)..(3)

<223> n is a, c, g, or t

<220>

<221> misc_feature

<222> (10)..(21)

<223> n is a, c, g, or t

<400> 119

nnnrycgryn nnnnnnnnnn nggggggggg g

31

<210> 120

<211> 32

<212> DNA

<213> Artificial sequence

<220>

<223> synthetic

<220>
<221> misc_feature
<222> (1)..(3)
<223> n is a, c, g, or t

<220>
<221> misc_feature
<222> (10)..(22)
<223> n is a, c, g, or t

<400> 120
nnnrycgryn nnnnnnnnnn nngggggggg gg

32

<210> 121
<211> 10
<212> DNA
<213> Artificial sequence

<220>
<223> synthetic

<220>
<221> misc_feature
<222> (1)..(3)
<223> n is a, c, g, or t

<220>
<221> misc_feature
<222> (8)..(10)
<223> n is a, c, g, or t

<400> 121
nnndcgwnnn

10

<210> 122
<211> 10
<212> DNA
<213> Artificial sequence

<220>
<223> synthetic

<220>
<221> misc_feature
<222> (1)..(3)
<223> n is a, c, g, or t

<220>
<221> misc_feature
<222> (8)..(10)
<223> n is a, c, g, or t

<400> 122
nnntcgwnnn

10

<210> 123
<211> 18
<212> DNA
<213> Artificial sequence

<220>
 <223> synthetic

<220>
 <221> misc_feature
 <222> (3)..(5)
 <223> n is a, c, g, or t

<220>
 <221> misc_feature
 <222> (12)..(14)
 <223> n is a, c, g, or t

<400> 123
 ggnnnrycgr ynnngggg

18

<210> 124
 <211> 19
 <212> DNA
 <213> Artificial sequence

<220>
 <223> synthetic

<220>
 <221> misc_feature
 <222> (3)..(5)
 <223> n is a, c, g, or t

<220>
 <221> misc_feature
 <222> (12)..(15)
 <223> n is a, c, g, or t

<400> 124
 ggnnnrycgr ynnnngggg

19

<210> 125
 <211> 20
 <212> DNA
 <213> Artificial sequence

<220>
 <223> synthetic

<220>
 <221> misc_feature
 <222> (3)..(5)
 <223> n is a, c, g, or t

<220>
 <221> misc_feature
 <222> (12)..(16)
 <223> n is a, c, g, or t

<400> 125
 ggnnnrycgr ynnnnngggg

20

<210> 126
<211> 21
<212> DNA
<213> Artificial sequence

<220>
<223> synthetic

<220>
<221> misc_feature
<222> (3)..(5)
<223> n is a, c, g, or t

<220>
<221> misc_feature
<222> (12)..(17)
<223> n is a, c, g, or t

<400> 126
ggnnnrycgr ynnnnnnngg g

21

<210> 127
<211> 22
<212> DNA
<213> Artificial sequence

<220>
<223> synthetic

<220>
<221> misc_feature
<222> (3)..(5)
<223> n is a, c, g, or t

<220>
<221> misc_feature
<222> (12)..(18)
<223> n is a, c, g, or t

<400> 127
ggnnnrycgr ynnnnnnngg gg

22

<210> 128
<211> 23
<212> DNA
<213> Artificial sequence

<220>
<223> synthetic

<220>
<221> misc_feature
<222> (3)..(5)
<223> n is a, c, g, or t

<220>
<221> misc_feature
<222> (12)..(19)
<223> n is a, c, g, or t

<400> 128
ggnnnrycgr ynnnnnnnng ggg

23

<210> 129
<211> 24
<212> DNA
<213> Artificial sequence

<220>
<223> synthetic

<220>
<221> misc_feature
<222> (3)..(5)
<223> n is a, c, g, or t

<220>
<221> misc_feature
<222> (12)..(20)
<223> n is a, c, g, or t

<400> 129
ggnnnrycgr ynnnnnnnnn gggg

24

<210> 130
<211> 25
<212> DNA
<213> Artificial sequence

<220>
<223> synthetic

<220>
<221> misc_feature
<222> (3)..(5)
<223> n is a, c, g, or t

<220>
<221> misc_feature
<222> (12)..(21)
<223> n is a, c, g, or t

<400> 130
ggnnnrycgr ynnnnnnnnn ngggg

25

<210> 131
<211> 26
<212> DNA
<213> Artificial sequence

<220>
<223> synthetic

<220>
<221> misc_feature
<222> (3)..(5)
<223> n is a, c, g, or t

<220>

<221> misc_feature
<222> (12)..(22)
<223> n is a, c, g, or t

<400> 131
ggnnnrycgr ynnnnnnnnnn nngggg

26

<210> 132
<211> 27
<212> DNA
<213> Artificial sequence

<220>
<223> synthetic

<220>
<221> misc_feature
<222> (3)..(5)
<223> n is a, c, g, or t

<220>
<221> misc_feature
<222> (12)..(23)
<223> n is a, c, g, or t

<400> 132
ggnnnrycgr ynnnnnnnnnn nnnngggg

27

<210> 133
<211> 28
<212> DNA
<213> Artificial sequence

<220>
<223> synthetic

<220>
<221> misc_feature
<222> (3)..(5)
<223> n is a, c, g, or t

<220>
<221> misc_feature
<222> (12)..(24)
<223> n is a, c, g, or t

<400> 133
ggnnnrycgr ynnnnnnnnnn nnnngggg

28

<210> 134
<211> 19
<212> DNA
<213> Artificial sequence

<220>
<223> synthetic

<220>
<221> misc_feature

<222> (3)..(5)
<223> n is a, c, g, or t

<220>
<221> misc_feature
<222> (12)..(14)
<223> n is a, c, g, or t

<400> 134
ggnnnrycgr ynnnggggg

19

<210> 135
<211> 20
<212> DNA
<213> Artificial sequence

<220>
<223> synthetic

<220>
<221> misc_feature
<222> (3)..(5)
<223> n is a, c, g, or t

<220>
<221> misc_feature
<222> (12)..(15)
<223> n is a, c, g, or t

<400> 135
ggnnnrycgr ynnnnnggggg

20

<210> 136
<211> 21
<212> DNA
<213> Artificial sequence

<220>
<223> synthetic

<220>
<221> misc_feature
<222> (3)..(5)
<223> n is a, c, g, or t

<220>
<221> misc_feature
<222> (12)..(16)
<223> n is a, c, g, or t

<400> 136
ggnnnrycgr ynnnnngggg g

21

<210> 137
<211> 22
<212> DNA
<213> Artificial sequence

<220>
<223> synthetic

<220>
<221> misc_feature
<222> (3)..(5)
<223> n is a, c, g, or t

<220>
<221> misc_feature
<222> (12)..(17)
<223> n is a, c, g, or t

<400> 137
ggnnnrycgr ynnnnnnnggg gg

22

<210> 138
<211> 23
<212> DNA
<213> Artificial sequence

<220>
<223> synthetic

<220>
<221> misc_feature
<222> (3)..(5)
<223> n is a, c, g, or t

<220>
<221> misc_feature
<222> (12)..(18)
<223> n is a, c, g, or t

<400> 138
ggnnnrycgr ynnnnnnngg ggg

23

<210> 139
<211> 24
<212> DNA
<213> Artificial sequence

<220>
<223> synthetic

<220>
<221> misc_feature
<222> (3)..(5)
<223> n is a, c, g, or t

<220>
<221> misc_feature
<222> (12)..(19)
<223> n is a, c, g, or t

<400> 139
ggnnnrycgr ynnnnnnnng gggg

24

<210> 140
<211> 25
<212> DNA

<213> Artificial sequence

<220>

<223> synthetic

<220>

<221> misc_feature

<222> (3)..(5)

<223> n is a, c, g, or t

<220>

<221> misc_feature

<222> (12)..(20)

<223> n is a, c, g, or t

<400> 140

ggnnnrycgr ynnnnnnnnn ggggg

25

<210> 141

<211> 26

<212> DNA

<213> Artificial sequence

<220>

<223> synthetic

<220>

<221> misc_feature

<222> (3)..(5)

<223> n is a, c, g, or t

<220>

<221> misc_feature

<222> (12)..(21)

<223> n is a, c, g, or t

<400> 141

ggnnnrycgr ynnnnnnnnn nggggg

26

<210> 142

<211> 27

<212> DNA

<213> Artificial sequence

<220>

<223> synthetic

<220>

<221> misc_feature

<222> (3)..(5)

<223> n is a, c, g, or t

<220>

<221> misc_feature

<222> (12)..(22)

<223> n is a, c, g, or t

<400> 142

ggnnnrycgr ynnnnnnnnn nnggggg

27

<210> 143
<211> 28
<212> DNA
<213> Artificial sequence

<220>
<223> synthetic

<220>
<221> misc_feature
<222> (3)..(5)
<223> n is a, c, g, or t

<220>
<221> misc_feature
<222> (12)..(23)
<223> n is a, c, g, or t

<400> 143
ggnnnrycgr ynnnnnnnnnn nnnnggggg

28

<210> 144
<211> 29
<212> DNA
<213> Artificial sequence

<220>
<223> synthetic

<220>
<221> misc_feature
<222> (3)..(5)
<223> n is a, c, g, or t

<220>
<221> misc_feature
<222> (12)..(24)
<223> n is a, c, g, or t

<400> 144
ggnnnrycgr ynnnnnnnnnn nnnnggggg

29

<210> 145
<211> 20
<212> DNA
<213> Artificial sequence

<220>
<223> synthetic

<220>
<221> misc_feature
<222> (3)..(5)
<223> n is a, c, g, or t

<220>
<221> misc_feature
<222> (12)..(14)
<223> n is a, c, g, or t

<400> 145
ggnnnrycgr ynnngggggg 20

<210> 146
<211> 21
<212> DNA
<213> Artificial sequence

<220>
<223> synthetic

<220>
<221> misc_feature
<222> (3)..(5)
<223> n is a, c, g, or t

<220>
<221> misc_feature
<222> (12)..(15)
<223> n is a, c, g, or t

<400> 146
ggnnnrycgr ynnnnngggg g 21

<210> 147
<211> 22
<212> DNA
<213> Artificial sequence

<220>
<223> synthetic

<220>
<221> misc_feature
<222> (3)..(5)
<223> n is a, c, g, or t

<220>
<221> misc_feature
<222> (12)..(16)
<223> n is a, c, g, or t

<400> 147
ggnnnrycgr ynnnnngggg gg 22

<210> 148
<211> 23
<212> DNA
<213> Artificial sequence

<220>
<223> synthetic

<220>
<221> misc_feature
<222> (3)..(5)
<223> n is a, c, g, or t

<220>
<221> misc_feature
<222> (12)..(17)
<223> n is a, c, g, or t

<400> 148
ggnnnrycgr ynnnnnnnggg ggg

23

<210> 149
<211> 24
<212> DNA
<213> Artificial sequence

<220>
<223> synthetic

<220>
<221> misc_feature
<222> (3)..(5)
<223> n is a, c, g, or t

<220>
<221> misc_feature
<222> (12)..(18)
<223> n is a, c, g, or t

<400> 149
ggnnnrycgr ynnnnnnngg gggg

24

<210> 150
<211> 25
<212> DNA
<213> Artificial sequence

<220>
<223> synthetic

<220>
<221> misc_feature
<222> (3)..(5)
<223> n is a, c, g, or t

<220>
<221> misc_feature
<222> (12)..(19)
<223> n is a, c, g, or t

<400> 150
ggnnnrycgr ynnnnnnngg ggggg

25

<210> 151
<211> 26
<212> DNA
<213> Artificial sequence

<220>
<223> synthetic

<220>

<221> misc_feature
<222> (3)..(5)
<223> n is a, c, g, or t

<220>
<221> misc_feature
<222> (12)..(20)
<223> n is a, c, g, or t

<400> 151
ggnnnrycgr ynnnnnnnnn gggggg

26

<210> 152
<211> 27
<212> DNA
<213> Artificial sequence

<220>
<223> synthetic

<220>
<221> misc_feature
<222> (3)..(5)
<223> n is a, c, g, or t

<220>
<221> misc_feature
<222> (12)..(21)
<223> n is a, c, g, or t

<400> 152
ggnnnrycgr ynnnnnnnnn ngggggg

27

<210> 153
<211> 28
<212> DNA
<213> Artificial sequence

<220>
<223> synthetic

<220>
<221> misc_feature
<222> (3)..(5)
<223> n is a, c, g, or t

<220>
<221> misc_feature
<222> (12)..(22)
<223> n is a, c, g, or t

<400> 153
ggnnnrycgr ynnnnnnnnn nngggggg

28

<210> 154
<211> 29
<212> DNA
<213> Artificial sequence

<220>

<223> synthetic

<220>

<221> misc_feature

<222> (3)..(5)

<223> n is a, c, g, or t

<220>

<221> misc_feature

<222> (12)..(23)

<223> n is a, c, g, or t

<400> 154

ggnnnrycgr ynnnnnnnnnn nnngggggg

29

<210> 155

<211> 30

<212> DNA

<213> Artificial sequence

<220>

<223> synthetic

<220>

<221> misc_feature

<222> (3)..(5)

<223> n is a, c, g, or t

<220>

<221> misc_feature

<222> (12)..(24)

<223> n is a, c, g, or t

<400> 155

ggnnnrycgr ynnnnnnnnnn nnngggggg

30

<210> 156

<211> 21

<212> DNA

<213> Artificial sequence

<220>

<223> synthetic

<220>

<221> misc_feature

<222> (3)..(5)

<223> n is a, c, g, or t

<220>

<221> misc_feature

<222> (12)..(14)

<223> n is a, c, g, or t

<400> 156

ggnnnrycgr ynnngggggg g

21

<210> 157

<211> 22

<212> DNA
 <213> Artificial sequence

<220>
 <223> synthetic

<220>
 <221> misc_feature
 <222> (3)..(5)
 <223> n is a, c, g, or t

<220>
 <221> misc_feature
 <222> (12)..(15)
 <223> n is a, c, g, or t

<400> 157
 ggnnnrycgr ynnnnngggg gg

22

<210> 158
 <211> 23
 <212> DNA
 <213> Artificial sequence

<220>
 <223> synthetic

<220>
 <221> misc_feature
 <222> (3)..(5)
 <223> n is a, c, g, or t

<220>
 <221> misc_feature
 <222> (12)..(16)
 <223> n is a, c, g, or t

<400> 158
 ggnnnrycgr ynnnnngggg ggg

23

<210> 159
 <211> 24
 <212> DNA
 <213> Artificial sequence

<220>
 <223> synthetic

<220>
 <221> misc_feature
 <222> (3)..(5)
 <223> n is a, c, g, or t

<220>
 <221> misc_feature
 <222> (12)..(17)
 <223> n is a, c, g, or t

<400> 159
 ggnnnrycgr ynnnnnnnggg gggg

24

<210> 160
 <211> 25
 <212> DNA
 <213> Artificial sequence

<220>
 <223> synthetic

<220>
 <221> misc_feature
 <222> (3)..(5)
 <223> n is a, c, g, or t

<220>
 <221> misc_feature
 <222> (12)..(18)
 <223> n is a, c, g, or t

<400> 160
 ggnnnrycgr ynnnnnnnngg ggggg

25

<210> 161
 <211> 26
 <212> DNA
 <213> Artificial sequence

<220>
 <223> synthetic

<220>
 <221> misc_feature
 <222> (3)..(5)
 <223> n is a, c, g, or t

<220>
 <221> misc_feature
 <222> (12)..(19)
 <223> n is a, c, g, or t

<400> 161
 ggnnnrycgr ynnnnnnnng gggggg

26

<210> 162
 <211> 27
 <212> DNA
 <213> Artificial sequence

<220>
 <223> synthetic

<220>
 <221> misc_feature
 <222> (3)..(5)
 <223> n is a, c, g, or t

<220>
 <221> misc_feature
 <222> (12)..(20)

<223> n is a, c, g, or t

<400> 162
ggnnnrycgr ynnnnnnnnn ggggggg

27

<210> 163
<211> 28
<212> DNA
<213> Artificial sequence

<220>
<223> synthetic

<220>
<221> misc_feature
<222> (3)..(5)
<223> n is a, c, g, or t

<220>
<221> misc_feature
<222> (12)..(21)
<223> n is a, c, g, or t

<400> 163
ggnnnrycgr ynnnnnnnnn nggggggg

28

<210> 164
<211> 29
<212> DNA
<213> Artificial sequence

<220>
<223> synthetic

<220>
<221> misc_feature
<222> (3)..(5)
<223> n is a, c, g, or t

<220>
<221> misc_feature
<222> (12)..(22)
<223> n is a, c, g, or t

<400> 164
ggnnnrycgr ynnnnnnnnn nnggggggg

29

<210> 165
<211> 30
<212> DNA
<213> Artificial sequence

<220>
<223> synthetic

<220>
<221> misc_feature
<222> (3)..(5)
<223> n is a, c, g, or t

<220>
<221> misc_feature
<222> (12)..(23)
<223> n is a, c, g, or t

<400> 165
ggnnnrycgr ynnnnnnnnnn nnnngggggggg

30

<210> 166
<211> 31
<212> DNA
<213> Artificial sequence

<220>
<223> synthetic

<220>
<221> misc_feature
<222> (3)..(5)
<223> n is a, c, g, or t

<220>
<221> misc_feature
<222> (12)..(24)
<223> n is a, c, g, or t

<400> 166
ggnnnrycgr ynnnnnnnnnn nnnngggggggg g

31

<210> 167
<211> 22
<212> DNA
<213> Artificial sequence

<220>
<223> synthetic

<220>
<221> misc_feature
<222> (3)..(5)
<223> n is a, c, g, or t

<220>
<221> misc_feature
<222> (12)..(14)
<223> n is a, c, g, or t

<400> 167
ggnnnrycgr ynnngggggggg gg

22

<210> 168
<211> 23
<212> DNA
<213> Artificial sequence

<220>
<223> synthetic

<220>
<221> misc_feature
<222> (3)..(5)
<223> n is a, c, g, or t

<220>
<221> misc_feature
<222> (12)..(15)
<223> n is a, c, g, or t

<400> 168
ggnnnrycgr ynnnnngggg ggg

23

<210> 169
<211> 24
<212> DNA
<213> Artificial sequence

<220>
<223> synthetic

<220>
<221> misc_feature
<222> (3)..(5)
<223> n is a, c, g, or t

<220>
<221> misc_feature
<222> (12)..(16)
<223> n is a, c, g, or t

<400> 169
ggnnnrycgr ynnnnngggg gggg

24

<210> 170
<211> 25
<212> DNA
<213> Artificial sequence

<220>
<223> synthetic

<220>
<221> misc_feature
<222> (3)..(5)
<223> n is a, c, g, or t

<220>
<221> misc_feature
<222> (12)..(17)
<223> n is a, c, g, or t

<400> 170
ggnnnrycgr ynnnnnnggg ggggg

25

<210> 171
<211> 26
<212> DNA
<213> Artificial sequence

<220>
<223> synthetic

<220>
<221> misc_feature
<222> (3)..(5)
<223> n is a, c, g, or t

<220>
<221> misc_feature
<222> (12)..(18)
<223> n is a, c, g, or t

<400> 171
ggnnnrycgr ynnnnnnnngg gggggg

26

<210> 172
<211> 27
<212> DNA
<213> Artificial sequence

<220>
<223> synthetic

<220>
<221> misc_feature
<222> (3)..(5)
<223> n is a, c, g, or t

<220>
<221> misc_feature
<222> (12)..(19)
<223> n is a, c, g, or t

<400> 172
ggnnnrycgr ynnnnnnnng gggggg

27

<210> 173
<211> 28
<212> DNA
<213> Artificial sequence

<220>
<223> synthetic

<220>
<221> misc_feature
<222> (3)..(5)
<223> n is a, c, g, or t

<220>
<221> misc_feature
<222> (12)..(20)
<223> n is a, c, g, or t

<400> 173
ggnnnrycgr ynnnnnnnnn gggggg

28

<210> 174

<211> 29
<212> DNA
<213> Artificial sequence

<220>
<223> synthetic

<220>
<221> misc_feature
<222> (3)..(5)
<223> n is a, c, g, or t

<220>
<221> misc_feature
<222> (12)..(21)
<223> n is a, c, g, or t

<400> 174
ggnnnrycgr ynnnnnnnnnn ngggggggg

29

<210> 175
<211> 30
<212> DNA
<213> Artificial sequence

<220>
<223> synthetic

<220>
<221> misc_feature
<222> (3)..(5)
<223> n is a, c, g, or t

<220>
<221> misc_feature
<222> (12)..(22)
<223> n is a, c, g, or t

<400> 175
ggnnnrycgr ynnnnnnnnnn nngggggggg

30

<210> 176
<211> 31
<212> DNA
<213> Artificial sequence

<220>
<223> synthetic

<220>
<221> misc_feature
<222> (3)..(5)
<223> n is a, c, g, or t

<220>
<221> misc_feature
<222> (12)..(23)
<223> n is a, c, g, or t

<400> 176

ggnnnrycgr ynnnnnnnnn nnnngggggg g

31

<210> 177
<211> 32
<212> DNA
<213> Artificial sequence

<220>
<223> synthetic

<220>
<221> misc_feature
<222> (3)..(5)
<223> n is a, c, g, or t

<220>
<221> misc_feature
<222> (12)..(24)
<223> n is a, c, g, or t

<400> 177
ggnnnrycgr ynnnnnnnnn nnnngggggg gg

32

<210> 178
<211> 23
<212> DNA
<213> Artificial sequence

<220>
<223> synthetic

<220>
<221> misc_feature
<222> (3)..(5)
<223> n is a, c, g, or t

<220>
<221> misc_feature
<222> (12)..(14)
<223> n is a, c, g, or t

<400> 178
ggnnnrycgr ynnngggggg ggg

23

<210> 179
<211> 24
<212> DNA
<213> Artificial sequence

<220>
<223> synthetic

<220>
<221> misc_feature
<222> (3)..(5)
<223> n is a, c, g, or t

<220>
<221> misc_feature

<222> (12)..(15)
<223> n is a, c, g, or t

<400> 179
ggnnnrxcgr ynnnnngggg gggg

24

<210> 180
<211> 25
<212> DNA
<213> Artificial sequence

<220>
<223> synthetic

<220>
<221> misc_feature
<222> (3)..(5)
<223> n is a, c, g, or t

<220>
<221> misc_feature
<222> (12)..(16)
<223> n is a, c, g, or t

<400> 180
ggnnnrxcgr ynnnnngggg gggg

25

<210> 181
<211> 26
<212> DNA
<213> Artificial sequence

<220>
<223> synthetic

<220>
<221> misc_feature
<222> (3)..(5)
<223> n is a, c, g, or t

<220>
<221> misc_feature
<222> (12)..(17)
<223> n is a, c, g, or t

<400> 181
ggnnnrxcgr ynnnnngggg gggg

26

<210> 182
<211> 27
<212> DNA
<213> Artificial sequence

<220>
<223> synthetic

<220>
<221> misc_feature
<222> (3)..(5)

<223> n is a, c, g, or t

<220>

<221> misc_feature

<222> (12)..(18)

<223> n is a, c, g, or t

<400> 182

ggnnnrycgr ynnnnnnnngg gggggggg

27

<210> 183

<211> 28

<212> DNA

<213> Artificial sequence

<220>

<223> synthetic

<220>

<221> misc_feature

<222> (3)..(5)

<223> n is a, c, g, or t

<220>

<221> misc_feature

<222> (12)..(19)

<223> n is a, c, g, or t

<400> 183

ggnnnrycgr ynnnnnnnng gggggggg

28

<210> 184

<211> 29

<212> DNA

<213> Artificial sequence

<220>

<223> synthetic

<220>

<221> misc_feature

<222> (3)..(5)

<223> n is a, c, g, or t

<220>

<221> misc_feature

<222> (12)..(20)

<223> n is a, c, g, or t

<400> 184

ggnnnrycgr ynnnnnnnnn gggggggg

29

<210> 185

<211> 30

<212> DNA

<213> Artificial sequence

<220>

<223> synthetic

<220>
<221> misc_feature
<222> (3)..(5)
<223> n is a, c, g, or t

<220>
<221> misc_feature
<222> (12)..(21)
<223> n is a, c, g, or t

<400> 185
ggnnnrycgr ynnnnnnnnn nggggggggg

30

<210> 186
<211> 31
<212> DNA
<213> Artificial sequence

<220>
<223> synthetic

<220>
<221> misc_feature
<222> (3)..(5)
<223> n is a, c, g, or t

<220>
<221> misc_feature
<222> (12)..(22)
<223> n is a, c, g, or t

<400> 186
ggnnnrycgr ynnnnnnnnn nngggggggg g

31

<210> 187
<211> 32
<212> DNA
<213> Artificial sequence

<220>
<223> synthetic

<220>
<221> misc_feature
<222> (3)..(5)
<223> n is a, c, g, or t

<220>
<221> misc_feature
<222> (12)..(23)
<223> n is a, c, g, or t

<400> 187
ggnnnrycgr ynnnnnnnnn nngggggggg gg

32

<210> 188
<211> 33
<212> DNA
<213> Artificial sequence

<220>
<223> synthetic

<220>
<221> misc_feature
<222> (3)..(5)
<223> n is a, c, g, or t

<220>
<221> misc_feature
<222> (12)..(24)
<223> n is a, c, g, or t

<400> 188
ggnnnrycgr ynnnnnnnnn nnnngggggg ggg

33

<210> 189
<211> 24
<212> DNA
<213> Artificial sequence

<220>
<223> synthetic

<220>
<221> misc_feature
<222> (3)..(5)
<223> n is a, c, g, or t

<220>
<221> misc_feature
<222> (12)..(14)
<223> n is a, c, g, or t

<400> 189
ggnnnrycgr ynnngggggg gggg

24

<210> 190
<211> 25
<212> DNA
<213> Artificial sequence

<220>
<223> synthetic

<220>
<221> misc_feature
<222> (3)..(5)
<223> n is a, c, g, or t

<220>
<221> misc_feature
<222> (12)..(15)
<223> n is a, c, g, or t

<400> 190
ggnnnrycgr ynnnnggggg ggggg

25

<210> 191
<211> 26
<212> DNA
<213> Artificial sequence

<220>
<223> synthetic

<220>
<221> misc_feature
<222> (3)..(5)
<223> n is a, c, g, or t

<220>
<221> misc_feature
<222> (12)..(16)
<223> n is a, c, g, or t

<400> 191
ggnnnrycgr ynnnnnngggg gggggg

26

<210> 192
<211> 27
<212> DNA
<213> Artificial sequence

<220>
<223> synthetic

<220>
<221> misc_feature
<222> (3)..(5)
<223> n is a, c, g, or t

<220>
<221> misc_feature
<222> (12)..(17)
<223> n is a, c, g, or t

<400> 192
ggnnnrycgr ynnnnnngggg gggggggg

27

<210> 193
<211> 28
<212> DNA
<213> Artificial sequence

<220>
<223> synthetic

<220>
<221> misc_feature
<222> (3)..(5)
<223> n is a, c, g, or t

<220>
<221> misc_feature
<222> (12)..(18)
<223> n is a, c, g, or t

<400> 193
ggnnnrycgr ynnnnnnnng gggggggg

28

<210> 194
<211> 29
<212> DNA
<213> Artificial sequence

<220>
<223> synthetic

<220>
<221> misc_feature
<222> (3)..(5)
<223> n is a, c, g, or t

<220>
<221> misc_feature
<222> (12)..(19)
<223> n is a, c, g, or t

<400> 194
ggnnnrycgr ynnnnnnnng gggggggg

29

<210> 195
<211> 30
<212> DNA
<213> Artificial sequence

<220>
<223> synthetic

<220>
<221> misc_feature
<222> (3)..(5)
<223> n is a, c, g, or t

<220>
<221> misc_feature
<222> (12)..(20)
<223> n is a, c, g, or t

<400> 195
ggnnnrycgr ynnnnnnnnn gggggggg

30

<210> 196
<211> 31
<212> DNA
<213> Artificial sequence

<220>
<223> synthetic

<220>
<221> misc_feature
<222> (3)..(5)
<223> n is a, c, g, or t

<220>

<221> misc_feature
<222> (12)..(21)
<223> n is a, c, g, or t

<400> 196
ggnnnrycgr ynnnnnnnnnn nggggggggg g

31

<210> 197
<211> 32
<212> DNA
<213> Artificial sequence

<220>
<223> synthetic

<220>
<221> misc_feature
<222> (3)..(5)
<223> n is a, c, g, or t

<220>
<221> misc_feature
<222> (12)..(22)
<223> n is a, c, g, or t

<400> 197
ggnnnrycgr ynnnnnnnnnn nngggggggg gg

32

<210> 198
<211> 33
<212> DNA
<213> Artificial sequence

<220>
<223> synthetic

<220>
<221> misc_feature
<222> (3)..(5)
<223> n is a, c, g, or t

<220>
<221> misc_feature
<222> (12)..(23)
<223> n is a, c, g, or t

<400> 198
ggnnnrycgr ynnnnnnnnnn nnnngggggg ggg

33

<210> 199
<211> 34
<212> DNA
<213> Artificial sequence

<220>
<223> synthetic

<220>
<221> misc_feature

<222> (3)..(5)
<223> n is a, c, g, or t

<220>
<221> misc_feature
<222> (12)..(24)
<223> n is a, c, g, or t

<400> 199
ggnnnrycgr ynnnnnnnnnn nnnngggggg gggg

34